No. 9300179

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Delta and Pine Land Company

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED, PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR PORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE E PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT ED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'DP 3606'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of Washington, D.C. this thirty-first day of August in the year of our Lord one thousand nine hundred and ninety-five.*

Attest:

Acting Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

FORM APPROVED: OMB 0581-0055, Expires 1/31/91

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) *(as it is to appear on the Certificate)*

Delta and Pine Land Company

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NO.

DPX 3606

3. VARIETY NAME

DP 3606

4. ADDRESS *(street and no. or R.F.D. no., city, state, and ZIP)*

100 Main Street
Scott, MS 38772

5. PHONE *(Include area code)*

(601) 742-3351

FOR OFFICIAL USE ONLY

PVPO NUMBER

9300179

FILING — Date: March 29, 1993 — Time: ☐ A.M. ☐ P.M.

FEES RECEIVED — Filing and Examination Fee: $ 2325.00 — Date: March 29, 1993 — Certificate Fee: $ 300.00 — Date: July 28, 1995

6. GENUS AND SPECIES NAME

Glycine max

7. FAMILY NAME *(Botanical)*

Leguminosae

8. CROP KIND NAME *(Common Name)*

Soybean

9. DATE OF DETERMINATION

1988

10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION *(Corporation, partnership, association, etc.)*

Corporation

11. IF INCORPORATED, GIVE STATE OF INCORPORATION

Delaware

12. DATE OF INCORPORATION

1985

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS

Dr. Harry Collins
P.O. Box 157
Scott, MS 38772

PHONE *(Include area code)*:

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED *(Follow INSTRUCTIONS on reverse)*

- a [X] Exhibit A, Origin and Breeding History of the Variety
- b. [X] Exhibit B, Novelty Statement.
- c. [X] Exhibit C, Objective Description of Variety
- d [X] Exhibit D, Additional Description of Variety
- e [X] Exhibit E, Statement of the Basis of Applicant's Ownership
- f [X] Seed Sample (2,500 viable untreated seeds) Date Seed Sample mailed to Plant Variety Protection Office _____
- g. [X] Filing and Examination Fee ($2,150) made payable to "Treasurer of the United States."

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? *(See section 83(a) of the Plant Variety Protection Act.)*

☐ YES *(If "YES," answer items 16 and 17 below)* ☒ NO *(If "NO," skip to item 18 below)*

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?

☐ YES ☐ NO

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?

☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?

☐ YES *(If "YES," through* ☐ Plant Variety Protection Act ☐ Patent Act Give date _____ *)*

☒ NO

19. HAS THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?

☐ YES (If "YES," give names of countries and dates)

☒ NO

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in section 41, and is entitled to protection under the provisions of section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT *(Owner(s))*	CAPACITY OR TITLE	DATE
Grover Shannon	Midsouth Soybean Breeder	3/26/93
SIGNATURE OF APPLICANT *(Owner(s))*	CAPACITY OR TITLE	DATE
Harry B. Collins	Vice President Director of Research	3/26/93

EXHIBIT A

DELTA AND PINE LAND COMPANY'S APPLICATION FOR DP 3606

ORIGIN AND BREEDING HISTORY

1985-	Cross number 85027 made, DP 415 x 105 at Scott, MS
1986-	F_1 grown in field
1987-	F_2 advanced to F_3 in winter nursery and F_3 plant selections were made at Scott, MS
1988-	F_4 plant row 88-19974 was selected and composited and determined to be stable and breeding true for characteristics described in this exhibit C of this application. At this time no variants are known or have been observed.
1989-	Entered into midsouth preliminary tests as 88-19974
1990-1991	Tested in advanced yiels tests at several locations across the midsouth and southeast. Seed increases were begun and off-type plants were rogued from seed stocks.
1992-	Tested as DPX 3606 in state experiment station tests in the midsouth and southeast
1993-	Released as DP 3606

EXHIBIT B

DELTA AND PINE LAND COMPANY'S APPLICATION FOR DP 3606

NOVELTY STATEMENT

To our knowledge DP 3606 most nearly resembles DP 105, DP 3627 and P 9641. Differences include but are not limited to the following:

1. Stem Canker - DP 3606 differs from DP 105, DP 3627 in that it is resistant to stem canker whereas DP 105, DP 3627 and P 9641 are moderately susceptible to susceptible to stem canker.

	Stem Canker Score[1]		Stem Canker[2] MS State Univ. 1992	
	1990	1991	Rating	Bu/A
DP 3606	1.0	1.2	R	53.4
DP 105	2.8	3.5	MS-S	44.0
DP 3627	2.8	3.0	S-VS	38.3
P 9641	-	-	MS-S	43.5
# Tests	1	2	1	1
# Reps	2	5	3	3

[1] Score 1 - Very Resistant to 5 - Very Susceptible

[2] R = Resistant MS = Moderately Susceptible
S = Susceptible VS = Very Susceptible
* From MS Agricultural and Forestry Experiment Station, Information Bulletin 237, January 1993.

2. Seed Coat Luster - Seed coats of DP 3606 are shiny, whereas DP 105, DP 3627 and P 9641 are dull.

3. Peroxidase Activity - DP 3606 like DP 105 has low peroxidase activity whereas peroxidase activity of DP 3627 and P 9641 are high.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, MEAT, GRAIN & SEED DIVISION
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Soybean)

OBJECTIVE DESCRIPTION OF VARIETY
SOYBEAN (Glycine max L.)

NAME OF APPLICANT(S)	TEMPORARY DESIGNATION	VARIETY NAME
Delta and Pine Land Company	DPX 3606	DP 3606

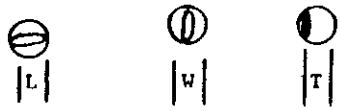
ADDRESS *(Street and No., or R.F.D. No., City, State, and Zip Code)*
100 Main Street
Scott, MS 38772

FOR OFFICIAL USE ONLY
PVPO NUMBER
9300179

Choose the appropriate response which characterizes the variety in the features described below. When the number of significant digits in your answer is fewer than the number of boxes provided, place a zero in the first box when number is 9 or less (e.g., [0][9]). Starred characters ★ are considered fundamental to an adequate soybean variety description. Other characters should be described when information is available.

1. SEED SHAPE:

[2]



1 = Spherical (L/W, L/T, and T/W ratios = < 1.2)
2 = Spherical Flattened (L/W ratio > 1.2; L/T ratio = < 1.2)
3 = Elongate (L/T ratio > 1.2; T/W = < 1.2)
4 = Elongate Flattened (L/T ratio > 1.2; T/W > 1.2)

★ **2. SEED COAT COLOR: (Mature Seed)**

[1] 1 = Yellow 2 = Green 3 = Brown 4 = Black 5 = Other *(Specify)* _____

3. SEED COAT LUSTER: (Mature Hand Shelled Seed)

[2] 1 = Dull ('Corsoy 79'; 'Braxton') 2 = Shiny ('Nebsoy'; 'Gasoy 17')

★ **4. SEED SIZE: (Mature Seed)**

[1][4] Grams per 100 seeds

★ **5. HILUM COLOR: (Mature Seed)**

[5] 1 = Buff 2 = Yellow 3 = Brown 4 = Gray 5 = Imperfect Black 6 = Black 7 = Other *(Specify)* _____

★ **6. COTYLEDON COLOR: (Mature Seed)**

[1] 1 = Yellow 2 = Green

★ **7. SEED PROTEIN PEROXIDASE ACTIVITY:**

[1] 1 = Low 2 = High

★ **8. SEED PROTEIN ELECTROPHORETIC BAND:**

[ ] 1 = Type A ($SP1^a$) 2 = Type B ($SP1^b$)

★ **9. HYPOCOTYL COLOR:**

[3] 1 = Green only ('Evans'; 'Davis') 2 = Green with bronze band below cotyledons ('Woodworth'; 'Tracy')
3 = Light Purple below cotyledons ('Beeson'; 'Pickett 71')
4 = Dark Purple extending to unifoliate leaves ('Hodgson'; 'Coker Hampton 266A')

★ **10. LEAFLET SHAPE:**

[3] 1 = Lanceolate 2 = Oval 3 = Ovate 4 = Other *(Specify)* _____

4

11. LEAFLET SIZE:

[2] 1 = Small ('Amsoy 71'; 'A5312') 2 = Medium ('Corsoy 79'; 'Gasoy 17') 3 = Large ('Crawford'; 'Tracy')

12. LEAF COLOR:

[3] 1 = Light Green ('Weber'; 'York') 2 = Medium Green ('Corsoy 79'; 'Braxton') 3 = Dark Green ('Gnome'; 'Tracy')

★ **13. FLOWER COLOR:**

[2] 1 = White 2 = Purple 3 = White with purple throat

★ **14. POD COLOR:**

[1] 1 = Tan 2 = Brown 3 = Black

★ **15. PLANT PUBESCENCE COLOR:**

[1] 1 = Gray 2 = Brown (Tawny)

16. PLANT TYPES:

[2] 1 = Slender ('Essex'; 'Amsoy 71') 2 = Intermediate ('Amcor'; 'Braxton') 3 = Bushy ('Gnome'; 'Govan')

★ **17. PLANT HABIT:**

[1] 1 = Determinate ('Gnome'; 'Braxton') 2 = Semi-Determinate ('Will') 3 = Indeterminate ('Nebsoy'; 'Improved Pelican')

★ **18. MATURITY GROUP:**

[0][9] 1 = 000 2 = 00 3 = 0 4 = I 5 = II 6 = III 7 = IV 8 = V 9 = VI 10 = VII 11 = VIII 12 = IX 13 = X

★ **19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)**

BACTERIAL DISEASES:

★ [2] Bacterial Pustule *(Xanthomonas phaseoli* var. *sojensis)*

★ [0] Bacterial Blight *(Pseudomonas glycinea)*

★ [0] Wildfire *(Pseudomonas tabaci)*

FUNGAL DISEASES:

★ [0] Brown Spot *(Septoria glycines)*

Frogeye Leaf Spot *(Cercospora sojina)*

★ [ ] Race 1 [ ] Race 2 [ ] Race 3 [ ] Race 4 [ ] Race 5 [2] Other *(Specify)* Races Unknown

[0] Target Spot *(Corynespora cassiicola)*

[0] Downy Mildew *(Peronospora trifoliorum* var. *manshurica)*

[0] Powdery Mildew *(Microsphaera diffusa)*

★ [0] Brown Stem Rot *(Cephalosporium gregatum)*

[2] Stem Canker *(Diaporthe phaseolorum* var. *caulivora)*

19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant) (Continued)

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FUNGAL DISEASES: (Continued)

★ [0] Pod and Stem Blight *(Diaporthe phaseolorum* var; *sojae)*

[0] Purple Seed Stain *(Cercospora kikuchii)*

[0] Rhizoctonia Root Rot *(Rhizoctonia solani)*

Phytophthora Rot *(Phytophthora megasperma* var. *sojae)*

★ [1] Race 1 [ ] Race 2 [ ] Race 3 [ ] Race 4 [ ] Race 5 [ ] Race 6 [ ] Race 7

[ ] Race 8 [ ] Race 9 [ ] Other *(Specify)* _____

VIRAL DISEASES:

[0] Bud Blight (Tobacco Ringspot Virus)

[0] Yellow Mosaic (Bean Yellow Mosaic Virus)

★ [0] Cowpea Mosaic (Cowpea Chlorotic Virus)

[0] Pod Mottle (Bean Pod Mottle Virus)

★ [0] Seed Mottle (Soybean Mosaic Virus)

NEMATODE DISEASES:

Soybean Cyst Nematode *(Heterodera glycines)*

★ [ ] Race 1 [ ] Race 2 [ ] Race 3 [ ] Race 4 [1] Other *(Specify)* Race 14

[0] Lance Nematode *(Hoplolaimus Colombus)*

★ [1] Southern Root Knot Nematode *(Meloidogyne incognita)*

★ [0] Northern Root Knot Nematode *(Meloidogyne Hapla)*

[1] Peanut Root Knot Nematode *(Meloidogyne arenaria)*

[0] Reniform Nematode *(Rotylenchulus reniformis)*

[ ] OTHER DISEASE NOT ON FORM *(Specify)*: _____

20. PHYSIOLOGICAL RESPONSES: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

★ [0] Iron Chlorosis on Calcareous Soil

[1] Other *(Specify)* _____

21. INSECT REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

[1] Mexican Bean Beetle *(Epilachna varivestis)*

[1] Potato Leaf Hopper *(Empoasca fabae)*

[1] Other *(Specify)* _____

22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant Shape	DP 105	Seed Coat Luster	DP 415
Leaf Shape	DP 105	Seed Size	DP 3627
Leaf Color	DP 415	Seed Shape	DP 3627
Leaf Size	DP 105	Seedling Pigmentation	DP 415

23. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY: Paired Comparison Data

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VARIETY	NO. OF DAYS MATURITY	PLANT LODGING SCORE	CM PLANT HEIGHT	LEAFLET SIZE		SEED CONTENT		SEED SIZE G/100 SEEDS	NO. SEEDS/ POD
				CM Width	CM Length	% Protein	% Oil		
DP 3606 Submitted	136	2.2	76	–	–	36.3	19.0	14.3	
DP 3627 Name of Similar Variety	138	1.9	74	–	–	35.9	18.8	14.3	

PUBLICATIONS USEFUL AS REFERENCE AIDS FOR COMPLETING THIS FORM:

1. Caldwell, B.E., ed. 1973. Soybeans: Improvement, Production, and Uses. Amer. Soc. Agron. Monograph No. 16.
2. Buttery, B.R. and R.I. Buzzell. 1968. Peroxidase activity in seeds of soybean varieties. Crop Sci., 8: 722-725.
3. Hymowitz, T. 1973. Electrophoretic analysis of SBTI-A_2 in the USDA soybean germplasm collection. Crop Sci., 13: 420-421.
4. Payne, R.C. and L.F. Morris. 1976. Differentiation of soybean cultivars by seedling pigmentation patterns. J. Seed Technol. 1: 1-19.

EXHIBIT D

DELTA AND PINE LAND COMPANY'S APPLICATION FOR DP 3606

ADDITIONAL DESCRIPTION OF VARIETY

DP 3606 is an F_3 selection composited in the F_4 generation from the cross DP 415 X DP 105. DP 3606 is being considered as a potential replacement or compliment for DP 3627 because it has shown superior yield and stem canker resistance in 25 D&PL tests.

DP 3606 has purple flowers, grey pubescence and tan pods. Seed are shiny yellow averaging 3200 seeds/lb. Hila are normally imperfect black but may vary in shades from buff to black depending on environmental effects. It has averaged 102 days earlier, 1 inch taller and lodges slightly more than DP 3627.

DP 3606 is resistant to frogeye leaf spot, stem canker and has good field tolerance to phytophthora root rot. It is susceptible to cyst and root knot nematode. DP 3606 has averaged 3% and 12% higher in yield in the midsouth and the southeast, respectively as compared to DP 3627. It is 2 days earlier with 5% higher yield than Young in D&PL tests.

SOYBEAN PRODUCT NOMINATION FORM

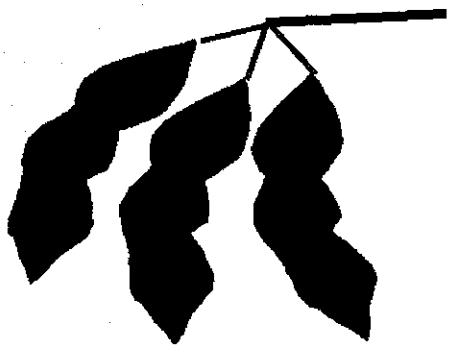
Suggested Nominee Number: DP 3606

Experimental Designations: DPX 3606, DPX 2385, 88-19974

Submitted by: Grover Shannon and Harry Collins (Project Leaders)

Date Submitted: January 1, 1993

Parentage: DP 415 X A 5980



Data Collected from 38 Replicated Yield Tests.

I. Plant & Seed Characteristics:

Flower Color:	Purple
Pubescence Color:	Grey
Hilum Color:	Imperfect Black
Pod Wall Color:	Tan
Seed Coat Luster:	Shiny
Leaf Shape:	Ovate
Plant Type:	Determinate
Peroxidase Activity:	Negative

II. Agronomic Characteristics:

Line	Mat.	Plant Height	Ldg.	Shat.	Seeds/ Lb.	% Pro.	% Oil
DP 3606 Nominee	-1	30	2.2	Exc.	3181	36.1	19.1
DP 3627 Check	0	29	1.9	Exc.	3194	35.7	18.9
Young Check	+1	35	2.4	Exc.	3527	36.2	18.5

III. Yield Data:

1991-92 Yield & Agronomic Data Summary

Line	Yield	% Yield	Mat	Hgt	Ldg
DP 3606	46.5	106	-1	30	2.2
Young	44.6	101	+1	35	2.4
DP 3627	44.0	100	0	29	1.9
# Tests	25	25	12	19	12

1992 Yield & Agronomic Data Summary

Line	Yield	% Yield	Mat	Hgt	Ldg
DP 3606	45.8	104	-1	31	2.3
Young	44.3	101	+1	36	2.6
DP 3627	44.0	100	0	30	2.0
# Tests	13	13	5	11	6

1991 Yield & Agronomic Data Summary

Line	Yield	% Yield	Mat	Hgt	Ldg
DP 3606	47.3	106	-1	36	2.2
P 9592	45.0	101	+1	35	2.4
DP 105	44.0	100	0	29	1.9
# Tests	12	25	12	19	12

1990 Yield & Agronomic Data Summary

Line	Yield	% Yield	Mat	Hgt	Ldg
P 9592	56.7	113	-1	33	1.8
DP 3606	54.0	109	+2	31	2.2
DP 105	50.3	100	0	30	1.7
# Tests	7	7	5	7	5

YIELD SUMMARY IN BU/A

By Region: 1991-92

	Midsouth		Southeast		Overall Mean	
Line	Yield	%Yield	Yield	% Yield	Yield	% Yield
DPX 3606	47.6	103	44.7	112	46.5	106
Young	45.0	97	43.9	110	44.6	101
DP 3627	46.3	100	40.0	100	44.0	100
# Tests	16	16	9	9	25	25

11

By States: 1991-92

Line	AR	MS	LA	NC	SC	GA	MEAN
DP 3606	49.6	45.5	47.4	37.8	40.1	55.3	46.5
Young	47.9	40.4	44.9	39.4	37.6	54.9	44.6
DP 3627	51.0	43.5	43.2	35.7	32.8	51.6	44.0
# Tests	6	6	4	3	3	3	25

By Soil Type, Planting and Disease Situation: 1991-92

Line	Loam	Clay	Early Planted	SCN	Stem Canker	Root Knot	Lance	Aerial Blight
DP 3606	46.9	47.1	44.1	46.0	41.7	49.9	39.6	50.0
DP 3627	46.7	43.5	37.7	45.7	33.0	37.4	37.8	48.5
Young	43.4	46.8	32.3	45.5	35.0	47.0	41.2	48.2
# Tests	11	6	2	4	1	2	1	1

1991-92 Head to Head Comparisons

DP 3606 vs	Total Comp.	Won by-Bu/A	# Wins	% Wins
DP 3627	25	+1.5	15	60
Young	25	+0.9	16	64

YIELD IN BU/A
BY TESTS AND LOCATIONS

1992 - 265M, 261A, 267C

	MIDSOUTH								
Line	AR CD	AR BR	AR DM	MS SE	MS SL	MS SC	LA LP	LA MG	Mid-Sth Mean
DP 3606	57.8	43.7	50.8	46.5	41.2	42.0	42.9	50.0	46.9
DP 3627	61.7	48.0	52.7	42.3	43.5	42.2	31.5	48.5	46.3
P 9641	58.7	44.0	52.6	37.1	42.5	43.0	43.9	45.6	45.9
Young	42.8	42.4	49.7	29.8	40.2	43.1	48.3	48.2	44.3
LSD .05	5.6	4.7	6.4	9.4	4.2	4.6	8.5	8.2	6.5
C. V.	7.8	8.5	7.6	13.9	5.7	6.6	13.6	11.7	9.4

	SOUTHEAST						
Line	NC CL	SC HV	SC OR	GA PL	GA VD	Sth-East Mean	Over All Mean
DP 3606	24.8	39.6	45.0	57.7	53.4	44.1	45.8
P 9641	26.2	41.6	34.1	60.0	49.9	42.4	44.6
Young	24.1	41.2	42.8	58.6	54.8	44.3	44.3
DP 3627	21.7	37.8	31.0	58.5	52.6	40.3	44.0
LSD .05	8.8	11.9	10.9	6.5	11.7	10.5	
C. V.	22.7	19.6	19.9	7.1	14.2	16.7	

1991 - 165M

	MIDSOUTH								
Line	AR CD	AR WH	AR DM	MS SE	MS SL	MS SC	LA LP	LA MG	Mid-Sth Mean
DP 3606	56.4	48.2	41.0	41.7	51.0	50.8	41.3	55.4	48.2
DP 3627	61.9	46.3	35.6	33.0	53.9	45.9	42.2	50.5	46.2
Young	52.5	46.0	43.7	35.0	47.6	46.4	39.8	54.8	45.7
DP 105	64.1	52.3	39.8	25.8	49.2	45.6	37.8	45.3	45.0
LSD .05	8.9	5.7	8.0	13.6	4.5	6.9	6.0	7.9	
C. V.	9.7	7.1	12.1	23.8	5.2	8.8	9.6	9.5	

	SOUTHEAST					
Line	NC CL	NC KN	SC HV	GA VD	Sth-East Mean	Over All Mean
DP 3606	35.2	53.4	38.0	54.8	45.4	47.3
Young	44.0	50.0	28.8	51.2	43.5	45.0
DP 105	39.3	51.0	28.9	51.4	42.7	44.2
DP 3627	38.5	46.9	29.5	43.7	39.6	44.0
LSD .05	11.1	7.3	12.3	10.4		
C. V.	15.8	9.6	27.0	13.1		

1990 - 059A

	MIDSOUTH					SOUTHEAST				
Line	TN RP	AR DM	MS SL	MS SC	Mid-Sth Mean	NC CL	NC KN	VA ES	Sth-East Mean	Over All Mean
DP 3606	63.6	49.7	60.0	54.9	55.3	51.0	48.9	65.7	55.2	54.9
P 9592	50.2	36.0	61.1	56.0	50.5	52.7	39.2	62.8	51.6	50.7
DP 105	51.5	40.4	58.9	48.5	49.7	50.7	42.6	60.4	51.2	50.3
LSD .05	11.9	15.0	8.0	11.8		8.1	10.0	9.2		
C. V.	14.4	21.7	8.5	15.3		9.0	15.1	10.0		

IV. DISEASE REACTION AND OTHER INFORMATION:

Cyst Nematode

DP 3606 is susceptible to Cyst Nematode.

Race 3 (Score)	1	2	3	4	5	Race 14 (Score)	1	2	3	4	5
DP 3606	0	0	0	1	6		0	0	0	0	6
Essex	0	0	0	0	7		-	-	-	-	-
Centennial	7	0	0	0	0		0	0	0	0	7
Bedford	-	-	-	-	-		5	1	0	0	0
Location:	Jackson, TN 3/6/91						Jackson, TN 3/6/91				

Conducted by: Dr. L. Young, USDA Nematologist

Root Knot Nematode 1 = No galling 5 = Very severe galling

DP 3606 is moderately susceptible to common root knot and susceptible to peanut root knot nematode.

	Common Root Knot M. incognita			Peanut Root Knot M. arenaria
	1990[1]	1991[2]	1992[3]	1990[2]
DP 3606	2.0	2.0	1.3	5.0
DP 3627	3.3	2.0	3.7	5.0
Young	4.8	1.0	3.7	4.0
DP 105	4.3	1.0	1.0	5.0

Location: Hattiesburg, MS[1] Jay, FL[2] Orangeburg, SC[3]

Conducted by: Grover Shannon, Grady Robinson | Dr. Robert Kinloch, Nematologists, Univ. of Florida | Dr. Cindy Green, Chris Daniels

Stem Canker 1 = No symptoms 5 = Very severe symptoms

DP 3606 is resistant to Stem Canker.

	1990[1]	1991[1]	1991[2]
DP 3606	1.0	1.0	1.3
DP 3627	2.8	3.0	3.0
Young	2.8	3.5	3.3
DP 105	2.8	3.0	4.0

Location: Scott, MS Hill Plots[1] and Scott Loam[2]

Conducted by: Grover Shannon & Grady Robinson

Frogeye Leaf Spot 1 = None 5 = Very Severe

DP 3606 is resistant to Frogeye Leaf Spot.

	1991
DP 3606	1.0
DP 3627	1.0
Young	1.0
DP 105	1.3
Centennial	3.0

Location: Morganza, LA

Conducted by: Grover Shannon & Grady Robinson

Sudden Death Syndrome 1 = None 5 = Very severe

DP 3606 is susceptible to Sudden Death Syndrome.

	1992
DP 3606	3.7
DP 3627	4.0
A 6297	1.0
DP 726	1.7
H 6686	4.3
A 5979	1.0

Location: Brinkley, AR

Conducted by: Grover Shannon

Aerial Blight 1 = None 5 = Very severe

DP 3606 is moderately tolerant to Aerial Blight.

	1992
DP 3606	2.0
DP 3627	2.0
Young	2.3
DP 105	3.0
H 6686	3.7

Location: Morganza, LA

Read by: Grover Shannon

Herbicide Tolerance

DP 3606 has no known sensitivity to common herbicides. It has normal tolerance to Metribuzin.

Chloride Tolerance

DP 3606 is sensitive to high chloride.

Seed Stock

There are 937 bushels of foundation DP 3606 and 100 pounds of breeder seed composited from 8 foot progeny rows selected for uniformity for plant characteristics.

Variety Description

DP 3606

DP 3606 is an F_4 selection composited in the F_5 generation from the cross DP 415 X DP 105. DP 3606 is being considered as a potential replacement or compliment for DP 3627 because it has shown superior yield and sten canker resistance in 25 D&PL tests.

DP 3606 has purple flowers, grey pubescence and tan pods. Seed are shiny yellow averaging 3200 seeds/lb. Hila are normally imperfect black but may vary in shades from buff to black depending on environmental effects. It has averaged 1 day earlier, 1 inch taller and lodges slightly more than DP 3627.

DP 3606 is resistant to frogeye leaf spot, stem canker and has good field tolerance to phytophthora root rot. It is susceptible to cyst and root knot nematode. DP 3606 has averaged 3% and 12% higher in yield in the midsouth and the southeast, respectively as compared to DP 3627. It is 2 days earlier with 5% higher yield than Young in D&PL tests.

KEY FEATURES

- 1 day earlier than DP 3627
- Higher yield than DP 3627 in D&PL tests, especially in SE
- Excellent stem canker resistance
- Excellent frogeye resistance
- Field resistant to phytophthora root rot

CHARACTERISTICS

Maturity	Early Group VI
Flower Color	Purple
Pubescence Color	Grey
Hilum Color	Imperfect Black
Plant Height	Medium
Lodging Resistance	Good
Shatter Resistance	Excellent
Seed Size	Medium/Large
Stem Canker	Resistant
Phytophthora Root Rot	Field Resistant
Cyst Nematode	Susceptible
Common Root Knot Nematode	Moderately Resistant
Peanut Root Knot Nematode	Susceptible
Lance Nematode	Tolerant
Red Crown Rot	Unknown
Aerial Blight	Moderately Resistant
Frogeye Leaf Spot	Resistant
Sudden Death Syndrome	Susceptible
Metribuzin	Tolerant
High Chloride	Sensitive

EXHIBIT E

DELTA AND PINE LAND COMPANY'S APPLICATION FOR DP 3606

STATEMENT OF APPLICANT'S OWNERSHIP

DP 3606 was originated and developed by Grover Shannon Ph.D. and Harry Collins Ph.D., Delta and Pine Land Company Plant Breeders. By agreement between employee and Delta and Pine Land Company, all rights to any inventions, discovery or development made by an employee are assigned to the company. No rights to such an invention or discovery are retained by the employee.